



BANGALORE UNIVERSITY
DEPARTMENT OF CIVIL ENGINEERING

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JNANA BHARATHI
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BUB/CTE/2015-16/

Date: 27-04-2015

I. TESTING OF FINE AGGREGATES:

Sub: Testing of Fine Aggregates,

{Project*: Reconstruction of Anganawadi Building in 3rd Phase in Ward No.04}

Ref.: Letter No. Testing/BUB/2015-16, dated 22-04-2015

Sample supplied to lab by: Sri. N. Lokanatha Reddy, Contractor,
Bangalore.

Report required for : Assistant Executive Engineer,
Yelahanka New Town Sub-Division
BBMP, Bangalore

TABLE - I.1 : SIEVE ANALYSIS:

IS Sieve Size, mm	Percentage Passing	Specification as Per IS: 383-1970(Reaffirmed 2002)			Remarks
		Percentage Passing			
		Zone-I	Zone-II	Zone -III	
04.75	97.00	90-100	90-100	90-100	The Sample Conforms to Grading Zone-II
02.36	86.00	60-95	75-100	85-100	
01.18	74.20	30-70	55-90	75-100	
600. mic	47.20	15-34	35-59	60-79	
300.mic	19.00	5-20	8-30	12-40	
150.mic	2.90	0-10	0-10	0-10	

TABLE I.2 :

Sl No	Test Conducted	Sample	Results	Requirements as Per IS. Specification IS :383-1970 (Reaffirmed 2002)
1	Silt Content	001	1.45%	Not more than 8%
2.	Specific Gravity	----	2.58	-----

*As Furnished by Client.

The Results relate only to the items tested.

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BUB/CTE/2015-16/

Date: 02-05-2015

1. TEST REPORT ON CEMENT:

Sub: Testing of 53 Grade Cement Sample (IS 12269-1987).

{Project*: Reconstruction of Anganawadi Building in 3rd Phase in Ward No.04}

Ref.: Letter No. Testing/BUB/2015-16, dated 22-04-2015

Sample supplied to lab by: Sri. N. Lokanatha Reddy, Contractor,
Bangalore.

Report required for : Assistant Executive Engineer,
Yelahanka New Town Sub-Division
BBMP, Bangalore

PHYSICAL TESTS ON CEMENT

Brand* : Birla Super
Grade * : 53
Type * : OPC
Date : 23-04-2015 to 30-04-2015

SL No	Name of Test	Results	Requirements as per IS 12269-1987
		Cement Sample	
1	Initial setting time	150 min	Shall not be less than 30 min
2	Final setting time	260 min	Shall not be more than 600 min
3	Fineness (by dry sieving on IS 90 micron sieve)	2.60%	Not to exceed 10.0%
4	Soundness test (by Le-Chatelier's method)	1.70 mm	Shall not be more than 10 mm
5	Compressive strength		
	a) 3 days (average of three results) b) 7 days (average of three results)	29.10 N/ Sq mm 42.10 N/Sq mm	Shall not be less than 27 N/Sqmm Shall not be less than 37N/Sqmm

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BUB/CTE/2015-16

Date: 27-04-2015

1. TESTING OF COARSE AGGREGATES (40 mm):

Sub: Testing of Coarse Aggregates.

{Project*: Reconstruction of Anganawadi Building in 3rd Phase in Ward No.04}

Ref.: Letter No. Testing/BUB/2015-16, dated 22-04-2015

Sample supplied to lab by: Sri. N. Lokanatha Reddy, Contractor,
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Report required for : Assistant Executive Engineer,
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BBMP, Bangalore

Table - 1.1 : SIEVE ANALYSIS :

IS Sieve Size, mm	Percentage passing	Requirements as per IS 383-1970 (Reaffirmed on 2002) % Passing	
		Single size	Graded
40mm	96.80	85-100	95 - 100
20mm	66.00	0 -20	30- 70
10mm	25.20	0 -5	10- 35
4.75mm	Nil	-----	0 - 5

TABLE 1.2 :

SL No	Test conducted	Sample No	Results	Requirements as per IS:383-1970 & Test Conforms to IS 2386(Part I to IV) - 1963 (Reaffirmed on 2002)
1.	Flakiness Index	As above	15.60 %	Not to exceed 25 %
2.	Crushing value	-----	26.00 %	Not to exceed 45 % for concrete other than for wearing surfaces and 30% for concrete for wearing surfaces

*As Furnished by Client.

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BUB/CTE/2015-16/

Date: 27-04-2015

I. TEST REPORT ON PRE -CAST SOLID BLOCKS:

Sub: Testing of Pre-Cast Solid Block- Compressive strength.

{Project*: Reconstruction of Anganawadi Building in 3rd Phase in Ward No.04}

Ref.: Letter No. Testing/BUB/2015-16, dated 22-04-2015

Sample supplied to lab by: Sri. N. Lokanatha Reddy, Contractor,
Bangalore.

Report required for : Assistant Executive Engineer,
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RESULTS OF COMPRESSIVE STRENGTH ON PRE -CAST SOLID BLOCKS

SPECIMENS

TABLE 1.1:-

Sl No	Dimensions of Specimen mm	Details	Cross Sectional Area mm ²	Maximum Load in KN	Compressive Strength N/ mm ²	Average Compressive Strength N/ mm ²
1	400X 200X 200	Solid	80000	310	3.87	3.83
	-----	"	80000	300	3.75	
	-----	"	80000	310	3.87	

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BUB/CTE/2015-16

Date: 27-04-2015

1. TEST REPORT ON REINFORCEMENT STEEL:

Sub: Testing of Reinforcement Steel of diameter 8, 10, 12mm.

{Project*: Reconstruction of Anganawadi Building in 3rd Phase in Ward No.04}

Ref.: Letter No. Testing/BUB/2015-16, dated 22-04-2015

Sample supplied to lab by: Sri. N. Lokanatha Reddy, Contractor,
Bangalore.

Report required for : Assistant Executive Engineer,
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BBMP, Bangalore

TABLE - 1

Sl. No	Details	For 8 mm		For 10mm		For 12mm	
		Test Results	Min. Req as per IS 1786-2008	Test Results	Min. Req as per IS 1786-2008	Test Results	Min. Req. as per IS 1786-2008
01	Observed diameter of bar	8.0mm	8.0mm	10.0mm	10.0mm	12.0mm	12.0mm
02	Observed Wt/m Length Kg/m	0.400	0.363	0.624	0.567	0.893	0.834
03	Proof stress/Yield stress, f_y , N/mm ²	552.0	500.0	556.0	500.0	560.0	500.0
04	Bend/ Re bend Test	Ok	---	Ok	---	Ok	---
05	Percentage of Elongation, %	21.30	12.00	19.70	12.00	18.90	12.00
06	Ultimate Tensile Strength N/mm ²	618.0	545.0	637.0	545.0	644.0	545.0

*As Furnished by Client.

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BUB/CTE/2015-16/

Date: 06-06-2015

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 28 days Compressive Strength),
{Project*: Reconstruction of Anganawadi Building in 3rd Phase in Ward No.04}

Ref.: Letter No. Testing/BUB/2015-16, dated 05-06-2015

Sample supplied to lab by: Sri. N. Lokanatha Reddy, Contractor,
Bangalore.

Report required for : Assistant Executive Engineer,
Yelahanka New Town Sub-Division
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RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE

CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M₂₀

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in Mm ²	Maximum Load in K.N	Compressive Strength (N/ mm ²)	Avg. Value
1	001	08-05-15	05-06-15	28	22500	495	22.00	22.22
	002	"	"	"	"	510	22.66	
	003	"	"	"	"	495	22.00	

*As Furnished by Client.

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AE 12.4

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